CyberPower®

Reliability. Quality. Value.

User's Manual

OL1000ERTXL2U

OL1500ERTXL2U

OL2000ERTXL2U

OL3000ERTXL2U

CyberPower Systems Inc.

www.cpsww.com

K01-0000249-00

IMPORTANT SAFETY INSTRUCTIONS

This manual contains important instructions. Please read and follow all instructions carefully during installation and operation of the unit. Read this manual thoroughly before attempting to unpack, install, or operate the UPS.

CAUTION! The UPS must be connected to a grounded AC power outlet with fuse or circuit breaker protection. DO NOT plug the UPS into an outlet that is not grounded. If you need to power-drain this equipment, turn off and unplug the unit.

CAUTION! The battery can power hazardous components inside the unit, even when the AC input power is disconnected.

CAUTION! The UPS should be placed near the connected equipment and easily accessible.

CAUTION! To prevent the risk of fire or electric shock, install in a temperature and humidity controlled indoor area, free of conductive contaminants. (Please see specifications for acceptable temperature and humidity range).

CAUTION! (No User Serviceable Parts): Risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

CAUTION! (Non-Isolated Battery Supply): Risk of electric shock, battery circuit is not isolated from AC power source; hazardous voltage may exist between battery terminals and ground. Test before touching.

CAUTION! To reduce the risk of fire, connect the UPS to a branch circuit with 10 amperes (OL1000 / OL1500 / OL2000) / 16 amperes (OL3000) maximum over-current protection in accordance to CE requirement.

CAUTION! The AC outlet where the UPS is connected should be close to the unit and easily accessible.

CAUTION! Please use only VDE-tested, CE-marked mains cable, (e.g. the mains cable of your equipment), to connect the UPS to the AC outlet.

CAUTION! Please use only VDE-tested, CE-marked power cables to connect any equipment to the UPS.

CAUTION! When installing the equipment, ensure that the sum of the leakage current of the UPS and the connected equipment does not exceed 3.5mA.

CAUTION! The OL1000 / OL1500 / OL2000 / OL3000 models are only qualified maintenance personnel may carry out installations.

CAUTION! Do not unplug the unit from AC Power during operation, as this will invalidate the protective ground insulation.

CAUTION! To avoid electric shock, turn off and unplug the unit before installing the input/output power cord with a ground wire. Connect the ground wire prior to connecting the line wires!

CAUTION! Do not use an improper size power cord as it may cause damage to your equipment and cause fire hazards.

CAUTION! Wiring must be done by qualified personnel.

CAUTION! DO NOT USE FOR MEDICAL OR LIFE SUPPORT EQUIPMENT! Under no circumstances this unit should be used for medical applications involving life support equipment and/or patient care.

CAUTION! DO NOT USE WITH OR NEAR AQUARIUMS! To reduce the risk of fire, do not use with or near aquariums. Condensation from the aquarium can come in contact with metal electrical contacts and cause the machine to short out.

CAUTION! Do not dispose of batteries in fire as the battery may explode.

CAUTION! Do not open or mutilate the battery, released electrolyte is harmful to the skin and eyes.

CAUTION! A battery can present a risk of electric shock and high short circuit current. The following precaution should be observed when working on batteries

1. Remove watches, rings or other metal objects.
2. Use tools with insulated handles.

CAUTION! The unit has a dangerous amount of voltage. When the UPS indicators is on, the units may continue to supply power thus the unit's outlets may have a dangerous amount of voltage even when it's not plugged in to the wall outlet.

CAUTION! Make sure everything is turned off and disconnected completely before conducting any maintenance, repairs or shipment.

CAUTION! Connect the Protection Earth (PE) safety conductor before any other cables are connected.

WARNING! (Fuses): To reduce the risk of fire, replace only with the same type and rating of fuse.

DO NOT INSTALL THE UPS WHERE IT WOULD BE EXPOSED TO DIRECT SUNLIGHT OR NEAR A STRONG HEAT SOURCE!

DO NOT BLOCK OFF VENTILATION OPENINGS AROUND THE HOUSING!

DO NOT CONNECT DOMESTIC APPLIANCES SUCH AS HAIR DRYERS TO UPS OUTPUT SOCKETS!

SERVICING OF BATTERIES SHOULD BE PERFORMED OR SUPERVISED BY PERSONNEL KNOWLEDGE OF BATTERIES AND THE REQUIRED PRECAUTIONS. KEEP UNAUTHORIZED PERSONNEL AWAY FROM BATTERIES!

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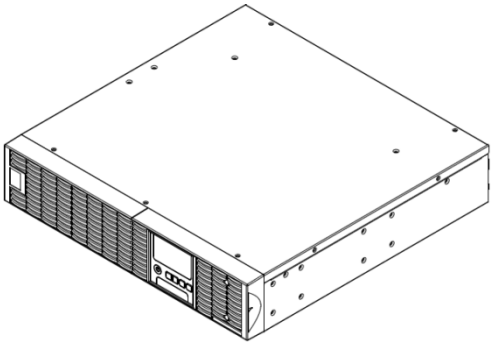
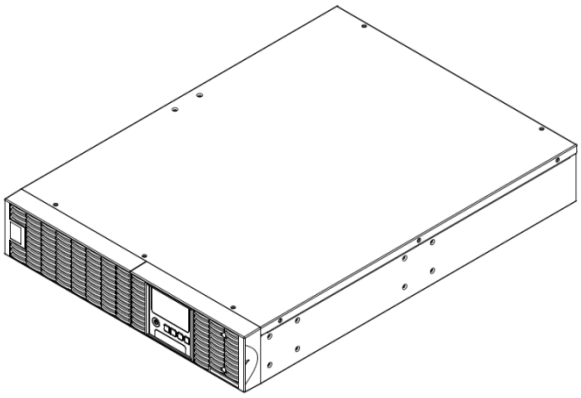
UNPACKING



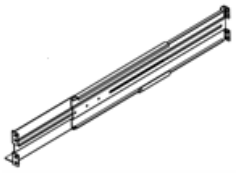


1K/1.5KVA or 2K/3KVA UPS

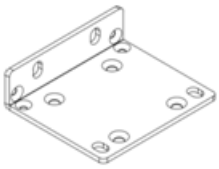
User's manual

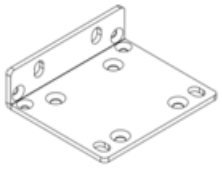
Register card

Rackmount left rail

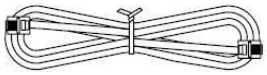


Rackmount right rail





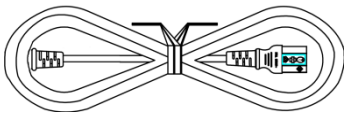
Rackmount ears (Stands) (2)



Phone line

USB communication cable

Serial Interface Cable (RS-232)



Power cords

Flat head screws: M5X8L (8)

Pan head screws: M5X12L (12)

Plastic washers (8)

Screw hole dust covers (10)

PowerPanel® Business Edition software CD

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HARDWARE INSTALLATION

These versatile UPS systems can be mounted in a rackmount or vertical tower orientation. This versatility is especially important to growing organizations with changing needs that value having the option to position a UPS on a floor or in a rackmount system. Please follow the instructions below for the respective mounting methods.

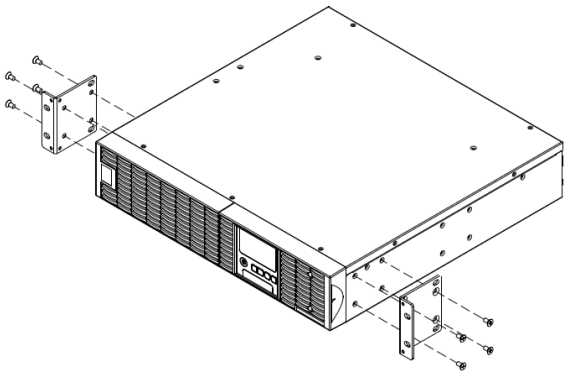
SAFETY PRECAUTIONS

CAUTION! To prevent the risk of fire or electric shock, only use the supplied hardware to attach the mounting brackets.

RACKMOUNT INSTALLATION

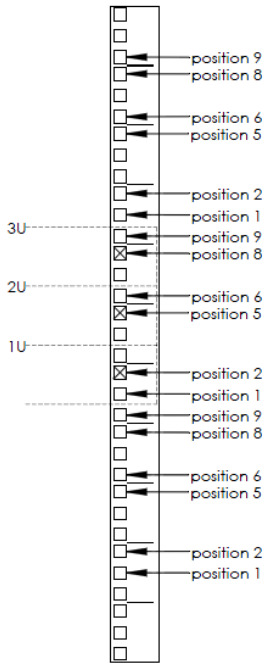
Step 1: Rackmount ears installation

Attach the two rackmount ears to the UPS using the provided screws M5X8L*8pcs.



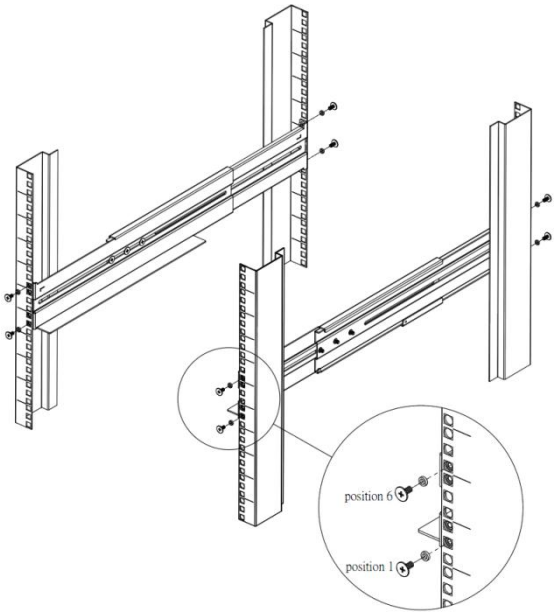
Step 2: Rackmount rail Installation

The rails adjust to mount in 48-cm (19-inch) panel racks from 52 to 91.5cm (20.5 to 36 inches) deep. Select the proper holes in the rack for positioning the UPS in the rack. The UPS takes up position 1 through position 6.

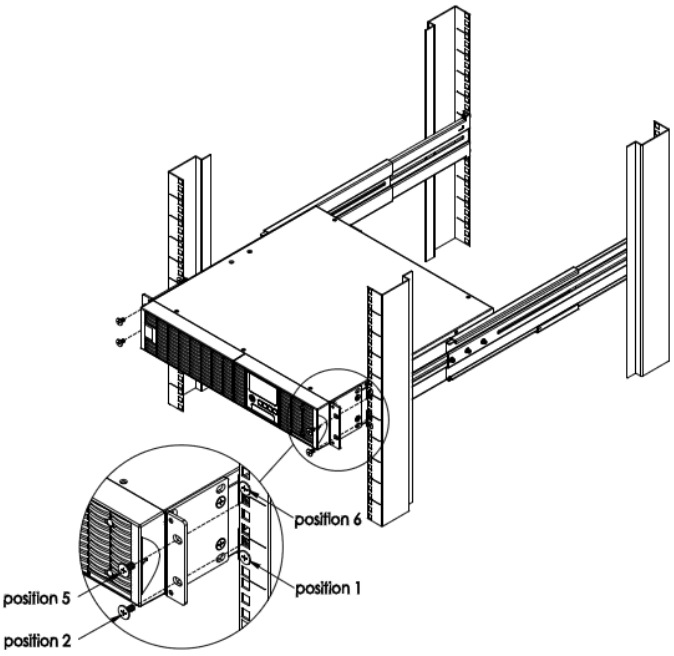


Step 3: Adjust rackmount rails to fit your rack

Attach the rackmount rail to your rack with two M5X12L screws and two plastic washers at the front of the rack. (Located in position 1 & position 6) Do not tighten the screws. Adjust the rail size on the rail assembly of your rack. Secure the rail to the rear of the rack with two M5X12L screws and two plastic washers. Tighten all screws at the front and rear of the rail. Once completed, perform the same steps for assembling the other rackmount rail.



Place the UPS on a flat stable surface with the front of the unit facing toward you. Secure the UPS to your rack with four M5X12L screws at the front of the rack. (Located in position 2 & position 5)



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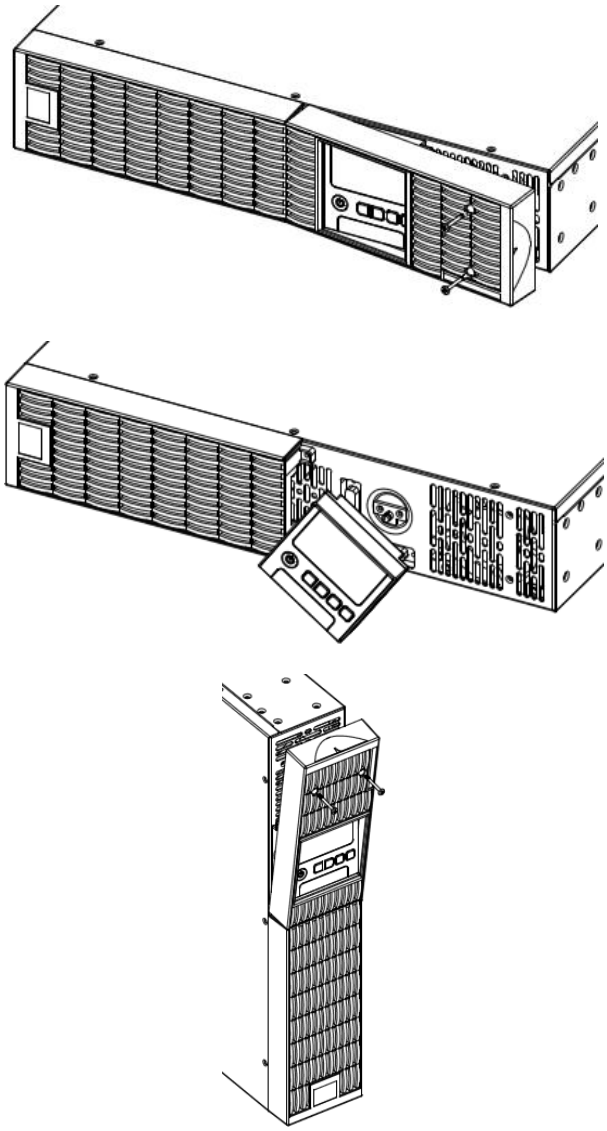
HARDWARE INSTALLATION

VERTICAL/TOWER INSTALLATION

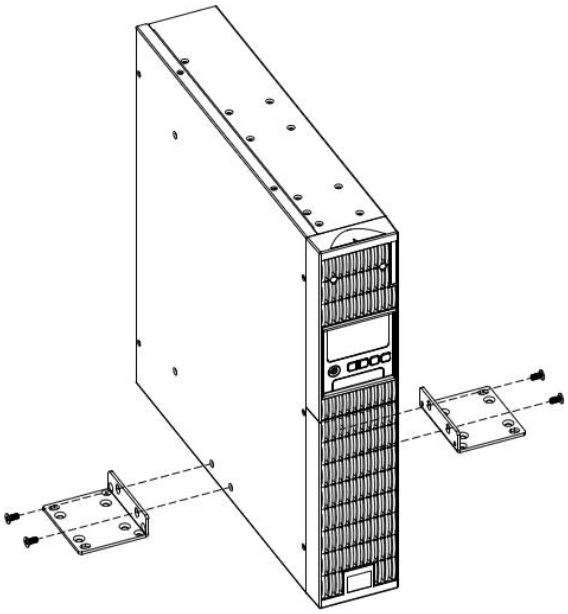
Step 1: Rotate the Multifunction LCD Module

Unscrew the right panel of the UPS. Separate the right panel from the UPS. Gently lift the LCD module out. Rotate it to the tower orientation. Reinstall it for a tower configuration.



Step 2: Attach the base stands

Tighten the screws (M5X12*4pcs) of the base stands (rackmount ears) onto the bottom of the UPS.



Step 3: Attach dust covers

Insert dust covers into the rackmount ear screw holes that are not being used.

ELECTRICAL INSTALLATION

After completing the hardware installation of the UPS, you are now ready to plug in the UPS and connect your equipment.

SAFETY PRECAUTIONS

CAUTION! Installation environment should be in a temperature and humidity controlled indoor area free of conductive contaminants. Do not install this UPS where excessive moisture or heat is present (Please see specifications for acceptable temperature and humidity range).

CAUTION! Never install a UPS, or associated wiring or equipment, during a lightning storm.

CAUTION! Do not work alone under hazardous conditions.

CAUTION! In case of the risk of electric shock, do not remove the top cover.

CAUTION! The battery can energize hazardous live parts inside even when the AC input power is disconnected.

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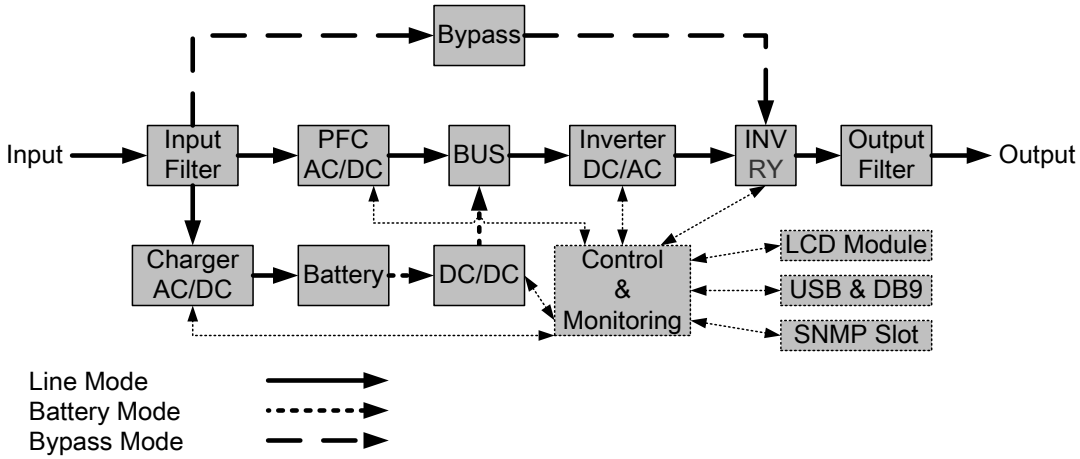
SYSTEM BLOCK DIAGRAM



HARDWARE INSTALLATION GUIDE

1. Battery charge loss may occur during shipping and storage. Before using the UPS, it's strongly recommended to charge batteries for four hours to ensure the batteries' maximum charge capacity. To recharge the batteries, simply plug the UPS into an AC outlet.

2. When using the included software, connect either the serial or the USB cable between the computer and the corresponding port on the UPS. Note: If the USB port is used, the serial port will be disabled. They cannot be used simultaneously. After connecting to either the USB port or the Serial port on the UPS, a computer with the PowerPanel® Business Edition Agent software installed can control the operating schedule, battery test, outlets, as well as obtain UPS status information. However, other computers with PowerPanel® Business Edition Client software can only obtain UPS status information via LAN connection.

3. Connect your computer, monitor, and any externally-powered data storage device (Hard drive, Tape drive, etc.) into the outlets only when the UPS is off and unplugged. DO NOT plug a laser printer, copier, space heater, vacuum, paper shredder or other large electrical device into the UPS. The power demands of these devices will overload and possibly damage the unit.

4. To protect a fax machine, telephone, modem line or network cable, connect the telephone or network cable from the wall jack outlet to the jack marked "IN" on the UPS and connect a telephone cable or network cable from the jack marked "OUT" on the UPS to the modem, computer, telephone, fax machine, or network device.

5. Press the ON/OFF switch to turn the UPS on. The Power-On indicator light will display when activated. If an overload is detected, an audible alarm will sound and the UPS will continuously emit two beeps per second. For resetting the unit, unplug some equipment from the outlets. Make sure your equipment carries a load current within the unit's safe range, (refer to the technical specifications).

6. This UPS is equipped with an auto-charge feature. When the UPS is plugged into an AC outlet, the battery will automatically charge, even when the unit is switched off.

7. To maintain an optimal battery charge, leave the UPS plugged into an AC outlet at all times.

8. Before storing the UPS for an extended period of time, turn the unit OFF. Then cover it and store it with the batteries fully charged. Recharge the batteries every three months to ensure good battery capacity and long battery life. Maintaining a good battery charge will help prevent possible damage to the unit from battery leakage.

9. The UPS has one USB port (default) and one Serial port that allows connection and communication between the UPS and any attached computer running the PowerPanel® Business Edition Agent software. The UPS can control the computer's shutdown during a power outage through the connection while the computer can monitor the UPS and alter various programmable parameters. Note: Only one communication port can be used at a time. The port not in use will automatically become disabled or the serial port will be disabled if both ports are attached.

10. EPO (Emergency Power Off) Port:
EPO ports allow administrators the capability to connect the UPS unit to customer-supplied EPO switches. These installations give operators a single access point to immediately power-off all equipment connected to the UPS during an emergency.

11. To avoid electric shock, turn the unit OFF and disconnect the unit from utility power before hardwiring the UPS (in/out power cord). The in/out power cord MUST be grounded.

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POWER MODULE FRONT/REAR PANEL DESCRIPTION

1. Power Button / Power on Indicator
Master ON/OFF for the UPS. Indicates that the UPS is on and supplying power.

2. UPS Status / Fault / Replace Battery LED Indicator
Indicates the status of the UPS whether is operating in Line, Battery or Bypass Mode, or the UPS has an internal fault and the battery need to be replaced.

3. Multifunction LCD Readout
Shows UPS status, information, settings and events.

4. Function Buttons
Scroll up, scroll down, select and cancel LCD menu.

5. Input Circuit Breaker
Provides input overload and fault protection.

6. Battery Backup & Surge Protected Outlets
Provides battery backup and surge protection. They ensure power is provided to connected equipment over a period of time during a power failure.

Critical / Noncritical Load
Allows the creation of load priorities to ensure that battery power reserves are transferred to specified outlets during a power outage. The unit can be programmed to provide additional runtime for equipment connected to the "CRITICAL" outlets, while stopping the power supply to equipment connected to "NONCRITICAL" outlets after a designated period of time.

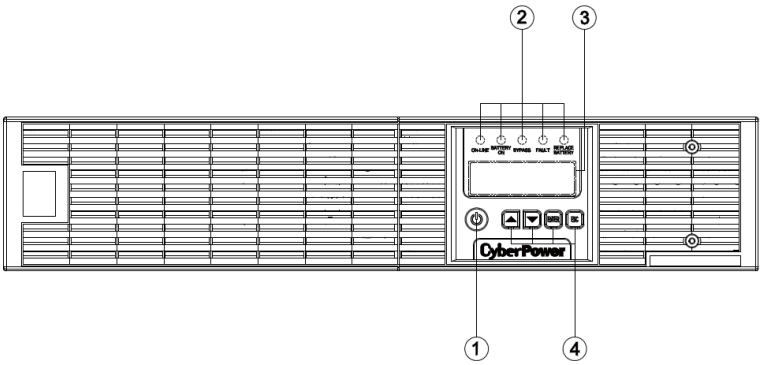
7. Serial Port
Serial port provides communication between the UPS and the computer. The UPS can control the computer's shutdown during a power outage through the connection while the computer can monitor the UPS and alter its various programmable parameters.

8. USB port
This is a connectivity port which allows communication and control between the UPS and the connected computer. It is recommended to install the PowerPanel® Business Edition Agent software on the PC/Server connected with the USB cord.

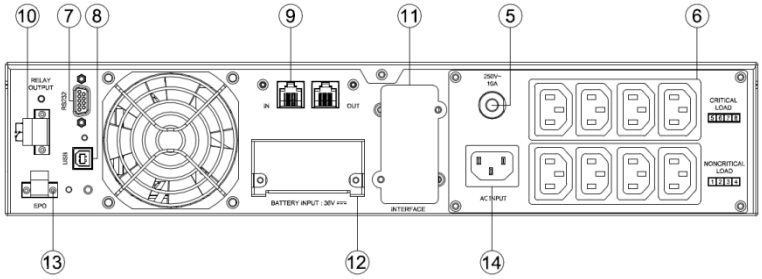
9. Surge Protected Communication Ports RJ-45/RJ-11
These ports are used to protect standard RJ-45/RJ-11 based products (ADSL, LAN, Phone/ Modem-Lines) and cabling systems from surges.

10. Relay Output Connector
Convert UPS signals into real potential-free Dry Contacts for industrial control.

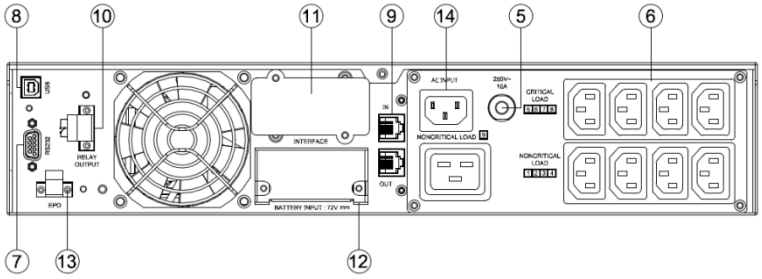
11. SNMP/HTTP Network slot
Slot to install the optional SNMP card for remote network control and monitoring.



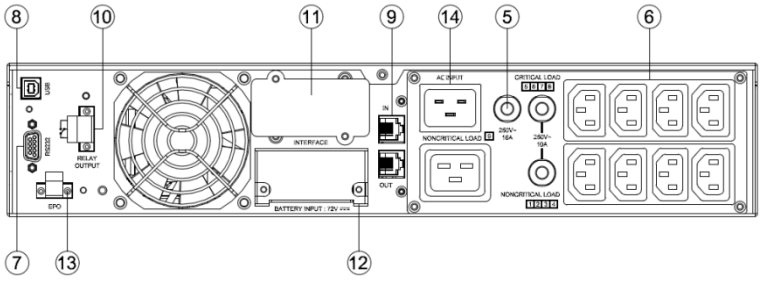
OL1000ERTXL2U / OL1500ERTXL2U / OL2000ERTXL2U / OL3000ERTXL2U



OL1000ERTXL2U / OL1500ERTXL2U



OL2000ERTXL2U



OL3000ERTXL2U

12. Extended Runtime Battery Module Connector
Connection for additional CyberPower XL Battery modules.

13. EPO (Emergency Power Off) Connector
Enables an emergency UPS Power-Off from a remote location.

14. AC Input Inlet
Connect the AC Power cord to a properly wired and grounded outlet.

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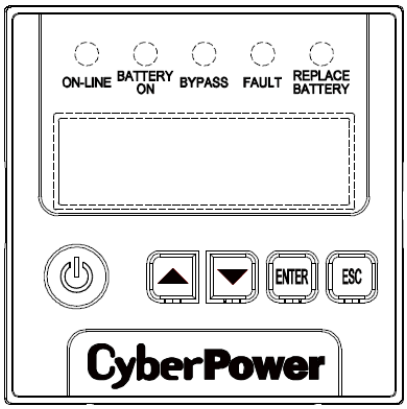
OPERATION INSTRUCTIONS FOR LCD MODULE



LED INDICATORS – UPS STATUS

LED Indicators	Color	UPS Status Description
ON/OFF	Blue	UPS power is on.
ON-LINE	Green	UPS is operating in Line Mode.
BATTERY ON	Yellow	UPS is operating in Battery Mode.
BYPASS	Yellow	UPS is operating in Bypass Mode, Manual Bypass or ECO (Economy) Mode.
FAULT	Red	UPS has an internal fault. See “Trouble Shooting” for additional information.
REPLACE BATTERY	Red	Battery will soon need to be replaced due to insufficient runtime.

LCD SCREEN – UPS STATUS

LCD Screen	UPS Status Description
Line Mode	UPS is operating in Line Mode.
Battery Mode	UPS is operating in Battery Mode.
Bypass Mode	UPS is operating in Bypass Mode.
Manual Bypass	UPS is operating in Manual Bypass.
ECO Mode	UPS is operating in ECO (Economy) Mode.

BUTTON OPERATION

Button	Operation Description
ON/OFF	Press this button to turn on or turn off UPS.
▲	Press this button to scroll up in the LCD menu.
▼	Press this button to scroll down in the LCD menu.
ENTER	Press this button to select an option.
ESC	Press this button to cancel or return to previous LCD menu.

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LCD SETUP FUNCTIONS

MULTI-FUNCTION LCD MAIN MENU

Press "**Enter**" button to activate "**MAIN MENU**".

MAIN MENU submenu	Function Description
Information	Displays the UPS information.
Configure	Displays the UPS settings that can be configured by the user.
Event Log	Displays the 3 most recent events, by event count, time (day/hour/minute), and event description.

LCD INFORMATION READOUT

There are 19 types of UPS information available for display.

1. Press the "**ENTER**" button to activate the "**MAIN MENU**".
2. Press the "▲" and "▼" buttons to scroll to the "**Information**" option.
3. Press the "**ENTER**" button to select the "**Information**" submenu.
4. Press the "▲" and "▼" buttons to scroll through the "**Information**" submenu in the following table.
5. Press the "**ESC**" button to return to UPS Status.

Information Submenu	Description
O/P Volt = XXX.XV	Displays the Output Voltage
O/P Freq = XX.XHz	Displays the Output Frequency
I/P Volt = XXX.XV	Displays the Input Voltage
I/P Freq = XX.XHz	Displays the Input Frequency
O/P Load = XXX%	Displays the Output Load Percentage of Maximum load
O/P Amp = X.XA	Displays the Output Current
O/P Watt =XXXXXW	Displays the Output Wattage
O/P VA =XXXXXVA	Displays the Output VA
BAT Volt = XXX.XV	Displays the Battery Voltage
BAT Cap = XXX%	Displays the Estimated Percentage of Battery Capacity
BAT Runtime=XXXM	Displays the Estimated Battery Runtime in Minutes
EBM Number= X	Displays the External Battery Module Number
TEMP =XX°C / XXX°F	Displays the Approximate inside Temperature in both ℃(Celsius) and ℉(Fahrenheit) for the UPS
SBM = XXXXX	Displays the Stage of Smart Battery Management
Rating = XXK VA	Displays the UPS Rating
MCU Ver = XXXX	Displays the MCU Firmware Version
Model Name	Displays the UPS Model Name
Date & Time **- - - - / - - / - - - -:- -**	Displays the present Date & Time
Next BAT Change **XXX / XXXX**	Displays the next Battery Change Date & Time

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LCD SETUP FUNCTIONS

LCD EVENT LOG

3 Event Logs of UPS can be recorded.

1. Press the "**ENTER**" button to activate the "**MAIN MENU**".
2. Press the "▲" and "▼" buttons to scroll to the "**Event Log**" option.
3. Press the "**ENTER**" button to select the "**Event Log**" submenu.
4. Press the "▲" and "▼" buttons to scroll through the "**Event Log**" submenu in the following table.
5. Press the "**ESC**" button to return to UPS Status.

Event Log Submenu	Description
(X)	XXDXXHXXM (without PowerPanel® Business or RMCARD302) - - / - - - -:- - (with PowerPanel® Business or RMCARD302)
	Event Content

MULTI-LANGUAGE INTERFACE

Users can configure 1 of the 3 available languages for display.

([**English**], [**Español-Spanish**], [**Français-French**])

1. Press the "**ENTER**" button to activate the "**MAIN MENU**".
2. Press the "▲" and "▼" buttons to scroll to the "**Configure**" option.
3. Press the "**ENTER**" button to select the "**Configure**" submenu.
4. Press the "▲" and "▼" buttons to scroll through the "**Language**" options.
5. Press the "**ENTER**" button to select the "**Language**" submenu.
6. Press the "▲" and "▼" buttons to scroll to the language that you want to select.

   You may be prompted to save the selection, if so press the "**ENTER**" button to save the setting.
7. Press the "**ESC**" button to cancel or return to previous LCD menu.

LCD SETTINGS CONFIGURATION

There are 21 UPS settings that can be configured by the user.

1. Press the "**ENTER**" button to activate the "**MAIN MENU**".
2. Press the "▲" and "▼" buttons to scroll to the "**Configure**" option.
3. Press the "**ENTER**" button to select the "**Configure**" submenu.
4. Press the "▲" and "▼" buttons to scroll to the "**Configure**" submenu in the following table.
5. Press the "**ENTER**" button to select the setting you want to configure.

   The first configuration parameter will be displayed on the second column of LCD screen.
6. Press the "▲" and "▼" buttons to scroll through the different parameters.
7. Press the "**ENTER**" button to select the parameter you want to change.

   You may be prompted to save the selection, if so press the "**ENTER**" button to save the setting. Some options are saved and started automatically. (See the following table for additional details.)
8. Press the "**ESC**" button to cancel or return to the previous LCD menu.

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LCD SETUP FUNCTIONS

Configure Submenu	Available Settings	Default Setting
Output Voltage	= [200V] [208V] [220V] [230V] [240V]	230V*
Sync Freq Window	Range= [+/- 1%] [+/- 2%] [+/- 3%] [+/- 4%] [+/- 5%] [+/- 6%] [+/- 7%] [+/- 8%] [+/- 9%] [+/-10%]	+/- 5%
Bypass V Window	Range= [+10%/-10%] [+10%/-15%] [+10%/-20%] [+15%/-10%] [+15%/-15%] [+15%/-20%]	+10%/-15%
Bypass Condition	[Check Freq/Volt] [Check Volt Only] [No Bypass]	Check Freq/Volt
ECO Mode**	[Disable] [Enable]	Disable
	[V Range= +/-15%] [V Range= +/-10%] (for [Enable])	V Range= +/-10%
Manual Bypass	[Disable] [Enable]	Disable
Battery Test	[Activate?]	None
Audible Alarms	[Disable] [Enable]	Enable
EBM Number	= [0] [1] [2] [3] [4] [5] [6] [7] [8] [9] [10]	0
Wiring Fault	[Disable] [Enable]	Enable
NCL Control	[Outlet On] [Outlet Off]	Outlet On
Language	[English] [Deutsch-German] [FranÇais-French]	English
Generator Mode***	[Disable] [Enable]	Disable
Communication	[Disable] [Enable]	Enable
Dry Relay Set	[I/P Power Fail] [Battery Low] [Summary Alarm] [UPS On Bypass] [UPS Fail]	I/P Power Fail
Converter Mode****	[Converter Off] [O/P Freq = 50Hz] [O/P Freq = 60Hz]	Converter OFF
Screen Saver	[Disable] [1 Minutes] [5 Minutes]	5 minutes
Clear Event Log	[Activate?]	None
Button OFF LOCK	[Disable] [Enable]	Disable
Charger Function	[SBM] [Constant]	SBM
Signal Inputs	[Disable] [EPO] [ROO]	Disable

*) Output voltage default setting depends on different nation or order requested.
200V are derated by 20%, 208 V are derated by 10%
**) This function can't be set when Manual Bypass, Generator Mode or Converter Mode is enabled.
***) UPS has no bypass when Generator Mode is enabled.
****) UPS has no bypass when Converter Mode is enabled. This function can only be set before the UPS is on.

SILENCING AUDIBLE ALARMS

1. Press any of four function buttons on the LCD module; Note: the alarm can not be turned off for a "**Battery Low**" condition. This condition will still result in an audible alarm.
2. Configure "**Audible Alarms**" as "**Disable**" on the LCD module and it will stop warning of any malfunction audibly.

MANUAL BATTERY TEST

Configure "**Battery Test**" as "**Active**" on the LCD module; and it will perform the "**Manual Battery Test**"

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LCD MODULE REMOTE CONTROL and WALL-MOUNTING INSTRUCTIONS

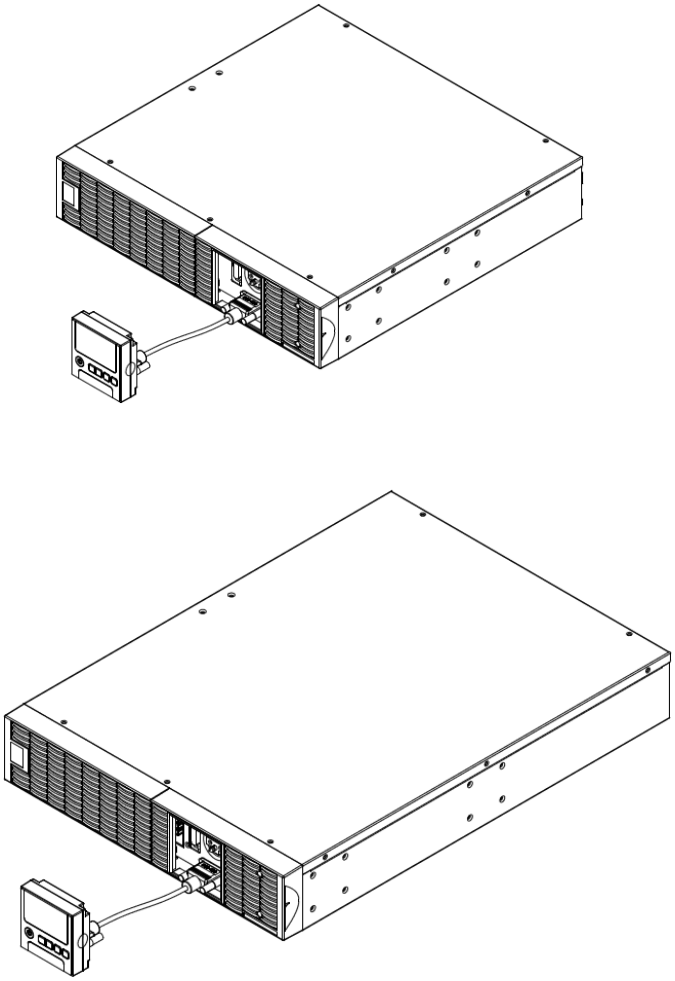
REMOTE CONTROL

Step 1: Remove the Multifunction LCD Module

Unscrew the right panel of the UPS. Separate the right panel from the UPS. Gently lift the LCD module out. Reinstall the right panel.

Step 2: Connect the DB26 Cable

Connect the DB26 cable from LCD module to the "**Remote Control Port**" on the front panel as shown in the following figure.



WALL-MOUNTING INSTRUCTIONS

Step 1: Remove the Multifunction LCD Module

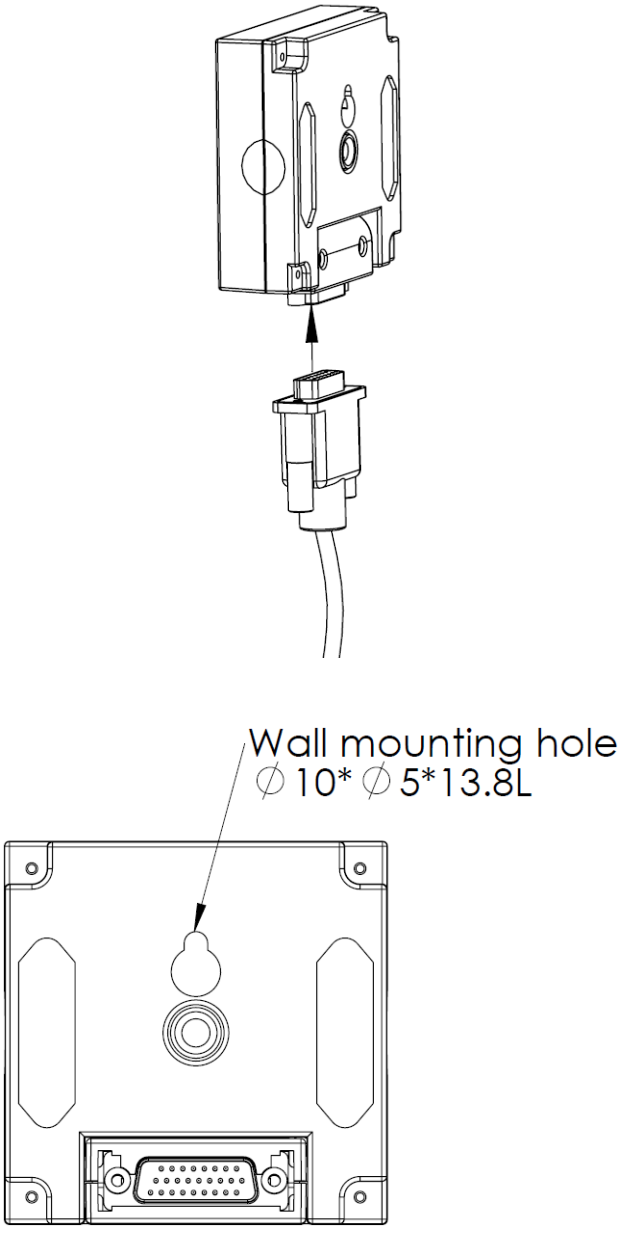
Unscrew the right panel of the UPS. Separate the right panel from the UPS. Gently lift the LCD module out. Reinstall the right panel.

Step 2: Rotate the DB26 Connector of LCD Module

Step 3: Connect the DB26 Cable

Connect the DB26 cable from LCD module to the "**Remote Control Port**" on the front panel as shown in the following figure.

Step 4: Mount LCD Module on the Wall



SAFETY PRECAUTIONS

CAUTION! It must be done by qualified personnel.

CAUTION! To avoid electric shock, turn off and unplug the unit before installing REMOTE CONTROL or WALL-MOUNTING INSTRUCTIONS.

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Storage

To store your UPS for an extended period, cover it and store with the battery fully charged. Recharge the battery every three months to ensure battery life.

Battery Replacement

Please read and follow the Safety Instructions before servicing the battery. Battery replacement should be performed by trained personnel who are familiar with the procedures and safety precautions. Make a note of the replacement Battery tray number.

Safety Precautions

CAUTION! Only use replacement batteries which are certified by CyberPower Systems. Use of incorrect battery type is an electrical hazard that could lead to explosion, fire, electric shock, or short circuit.

CAUTION! Batteries contain an electrical charge that can cause severe burns. Before servicing batteries, please remove any conductive materials such as jewelry, chains, wrist watches, and rings.

CAUTION! Do not open or mutilate the batteries. Electrolyte fluid is harmful to the skin/eyes and may be toxic.

CAUTION! To avoid electric shock, turn off and unplug the UPS from the wall receptacle before servicing the battery.

CAUTION! Only use tools with insulated handles. Do not lay tools or metal parts on top of the UPS or battery terminals.

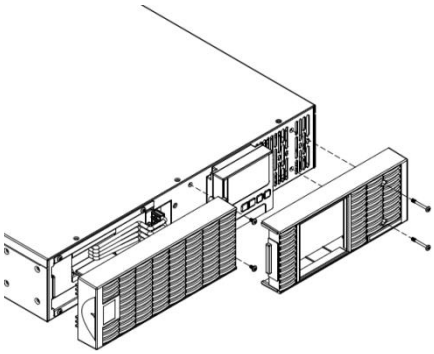
Replacement Batteries

Please refer to the front side of the UPS for the model number of the correct replacement batteries. For battery procurement, log onto www.CPSww.com, or contact your local dealer.

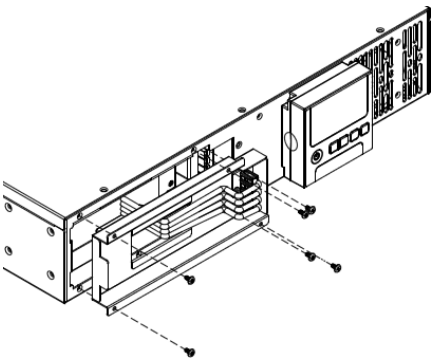
Battery Disposal

Batteries are considered hazardous waste and must be disposed of properly. Contact your local government for more information about proper disposal and recycling of batteries. Do not dispose of batteries in fire.

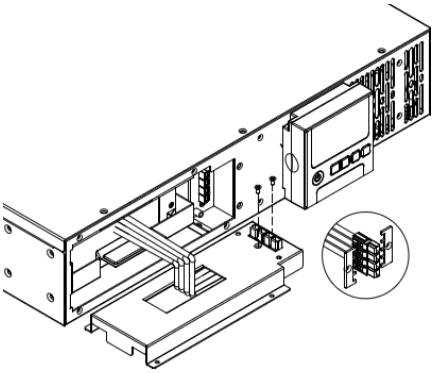
Battery Installation



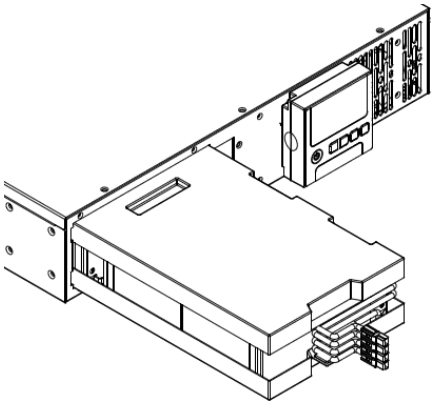
Step 1: Remove the front panels



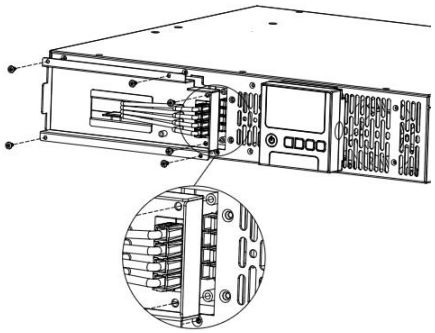
Step 2: Remove the retaining screws from the cable protection cover and then remove the cover itself



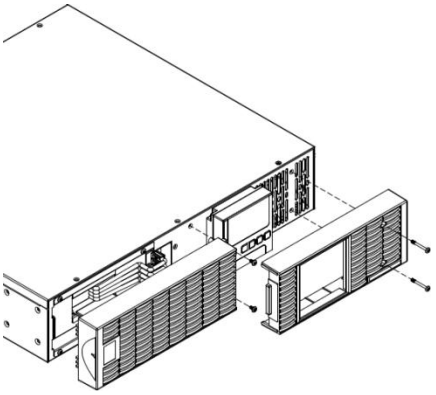
Step 3: Unscrew the connectors fixed plates on the battery retaining cover



Step 4: Pull the battery tray out slowly and then put the new battery tray back into the compartment



Step 5: Fasten back the connectors on the battery retaining cover. Then insert the battery connectors and tighten the screws of battery retaining cover



Step 6: Install the front panels

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TECHNICAL SPECIFICATIONS

Model	OL1000ERTXL2U	OL1500ERTXL2U	OL2000ERTXL2U	OL3000ERTXL2U
Configuration				
Capacity (VA)	1000VA	1500VA	2000VA	3000VA
Capacity (Watts)	900W	1350W	1800W	2700W
Form Factor	Rackmount / Tower			
Energy-saving Technology	Yes, ECO Mode Efficiency > 93%			
Input				
Input Voltage Range	120~139Vac for 0~ 60% Load 140~159Vac for 0~ 70% Load 160~179Vac for 0~ 80% Load 180~189Vac for 0~ 90% Load 190~280Vac for 0~100% Load			
Input Frequency Range	40~70Hz			
Input Power Factor	0.99			
Cold Start	Yes			
Output				
Output Waveform	Sine wave			
Output Voltage*	200, 208, 220, 230, 240Vac (Configurable) ±2%			
Output Frequency	50 / 60Hz (Auto-Sensing or Configurable) ±0.25Hz			
Transfer Time (Typically)	0ms			
Rated Power Factor	0.9			
Harmonic Distortion	THD < 3% at Linear Load, < 5% at Non-linear Load			
Crest Factor	3 : 1			
ECO Mode Voltage Regulation	±10%, ±15% (Configurable)			
UPS Outlets	(8) IEC C13		(8) IEC C13, (1) IEC C19,	
Protection				
Surge Protection	IEC 61000-4-5 Level 3			
Phone / Network Protection	RJ11/RJ45 (One In/One Out)			
Overload Protection	Line Mode： 105~125% Load for 1 min, 126~150% Load for 10 sec Battery Mode： 105~130% Load for 10 sec, 131~150% Load for 2 sec			
Short Circuit Protection	UPS Output Cut off Immediately or Input Fuse / Circuit Breaker Protection			
Battery				
Specifications	(3) 12V/9AH		(6) 12V/9AH	
Recharge Time (Typically)	4 hours			
Sealed, Maintenance Free	Yes			
Hot-Swappable	Yes			
Status Indicators				
LCD Screen	Multi-Function LCD Readout that Supports： Multi-Language Interface, (19) Types of Read Out, (21) Types of Function Setting, (3) Event Logs			
LED Indicators	Power On (Blue), Line Mode (Green), Battery Mode (Yellow), Bypass Mode (Yellow), Fault (Red), Replace Battery (Red)			
Audible Alarms	Battery Mode, Battery Low, Overload, UPS Fault, Replace Battery			
Environment				
Operating Temperature	32℉ to 104℉ (0℃ to 40℃)			
Operating Relative Humidity	0 to 90% Non-Condensing			
Management				
On-Device Features	Self Test, Auto-Charge, Auto-Restart, Auto-Overload Recovery			
Connectivity Ports	(1) Serial Port (RS232), (1) USB Port, (1) Relay Out			
SNMP/HTTP Capable	(1) Expansion Port (With optional SNMP card or RMCARD 302)			
Software				
Power Management Software	PowerPanel® Business Edition			
Physical				
Dimensions	L x W x H = 16.9 x 17 x 3.5in. (43 x 43.3 x 8.8cm)		L x W x H = 23.6 x 17 x 3.5in. (60 x 43.3 x 8.8cm)	
Net Weight	39.6lbs(18Kg)		68.2lbs(31Kg)	
Safety				
Conformance Approvals	CE, C-tick			

*)200V are derated by 20%, 208 V are derated by 10%

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TROUBLE SHOOTING

Problem	Possible Cause	Solution
Warning		
O/P Overload	Your equipment requires more power than the UPS can provide. If the UPS is in Line Mode then it will transfer to Bypass Mode; if the UPS is in Battery Mode it will shutdown.	Shut off non-essential equipment. If this solves the overload problem, the UPS will transfer to normal operation.
Load Over XXX%	Your equipment requires more power than the setting in the Power Management Software (PowerPanel® Business) will allow.	Shut off the non-essential equipment or increase the level in the Power Management Software.
Battery Mode	UPS is operating on battery power.	Save your data and perform a controlled-shutdown.
Battery Low	UPS is operating on battery power and will be shutting down soon due to extremely low battery voltage.	UPS will restart automatically when acceptable utility power returns.
BAT Disconnected	Missing battery power.	Check battery connector and battery breaker.
Battery Failure	UPS has failed in Battery Test.	1. Check battery connector and battery breaker. 2. Contact technical support to replace the battery.
Replace Battery	Battery will soon need to be replaced due to insufficient runtime.	Contact technical support to replace the battery.
EPO OFF	Missing the EPO connection.	Check the EPO connection.
Wiring Fault	Line and neutral wires are reversed.	Exchange line and neutral wires.
	Missing ground wire.	Connect ground wire.
	No ground wire.	Disable Wiring Fault alarm on LCD panel.
Line Abnormal	Wrong utility power backed up during UPS auto-restart.	Check whether voltage or frequency of utility power is out of range.
Output Short	Output short circuit.	Your attached equipment may have problems, please remove them and check again.
Over Temperature	High ambient temperature.	Check the fan for operation and if the ventilation hole has been covered.
Coldstart Lock	UPS is locked to prevent consuming battery power during shipping.	Plug into utility power for first-time operation.
Autorestart Lock	"Automatic Restore" is disabled in Power Management Software (PowerPanel® Business)	Press "ON/OFF" button to turn on UPS
Fault		
Over Charge	Battery is overcharged.	1. Remove battery connector and check charger voltage. 2. Contact CyberPower for repair.
Charger Failure	Charger has failed.	
High O/P V	Output voltage is too high.	1. Shut down UPS and turn off input breaker. 2. Contact CyberPower for repair.
Low O/P V	Output voltage is too low.	
Bus Fault	Internal DC bus voltage is too high or too low.	

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